8x1 DVI DL/SL Switcher

EXT-DVI-841DL

User Manual



www.gefen.com

ASKING FOR ASSISTANCE

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Notice

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Rev X1

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Congratulations on your purchase of the 8x1 DVI DL/SL Switcher. Your complete satisfaction is very important to us.

Gefen

Gefen delivers innovative, progressive computer and electronics add-on solutions that harness integration, extension, distribution and conversion technologies. Gefen's reliable, plug-and-play products supplement cross-platform computer systems, professional audio/video environments and HDTV systems of all sizes with hard-working solutions that are easy to implement and simple to operate.

The Gefen 8x1 DVI DL/SL Switcher

The rack-mountable Gefen 8x1 single-link/dual-link DVI Switcher offers an economical solution by eliminating the need to purchase many displays for each computer in a studio or lab situation. A plug-and-play solution, the 8x1 DVI DL/SL Switcher shares one dual-link display with up to eight computers or other DVI video sources, saving space on your desktop. The source computer is selected using the included IR remote control or through RS-232 control.

How It Works

The DVI monitor is connected to the switcher's output. Up to eight DVI sources connect to the switcher's DVI inputs using included high quality DVI cables.
The included power supply is connected to the switcher via the locking power plug and then to a power outlet. The currently selected computer's video signal appears on the shared monitor. Video sources are selected/switched using the RMT-8IR remote control, RS-232 control, or the input selector push button on the front panel of the switcher.

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE GEFEN 8X1 DVI DL/SL SWITCHER

- The 8x1 DVI DL/SL Switcher will take any of up to eight (8) DVI dual-link or single-link resolution inputs and switch them, one at a time, to a DVI output device such as a display/monitor or projector. Resolutions can be up to 3840x2400.

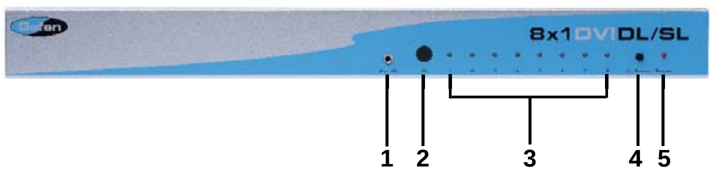
Features

- Switches easily between any eight DVI-SL or DVI-DL sources
- Maintains highest resolution dual link DVI
- Supports resolutions up through 3840x2400
- Extends the range of DVI video up to 50 feet
- Discrete IR remote control included
- Serial RS-232 remote port for switching via automated control or PC
- Supports DDWG standards for DVI monitors
- Rack ears included

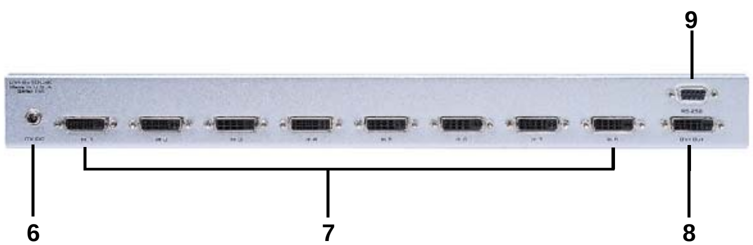
Package Includes

(1) 8x1 DVI DL/SL Switcher
(1) RMT-8IR Remote Control
(1) 5V DC Power Supply
(8) 6-foot Dual Link DVI cables
(1) Set of rack ears
(1) User’s Manual

Front Panel



Back Panel



PANEL DESCRIPTIONS

1 ***External IR Port***
For connection of external IR extension device such as the Gefen IR Extender (part # EXT-RMT-EXTIR).

2 ***IR Receiver***
Receives IR signal from the handheld Infrared remote control unit included with the product.

3 ***DVI Signal Status LEDs 1-8***
Provide visual confirmation of the currently selected DVI input signal out of the eight DVI input ports.

4 ***DVI Input Selector***
Push-button switch cycles the next DVI input 1-8 in a forward sequence starting again at 1.

5 ***Power Indicator LED***
Indicates when the 8x1 DVI DL/SL Switcher is receiving 5V DC power from its included AC power supply.

6 ***5V Locking Power Receptacle***
Supplies power to the 8x1 DVI DL/SL Switcher from the included external 5V DC power supply. The 5V power supply has a locking power tip which screws into this receptacle.

7 ***DVI Input Ports 1-8***
DVI video sources one through eight attach to the 8x1 DVI DL/SL Switcher.

8 ***DVI Output Port***
This DVI output port is connected to the display device (Monitor, Projector).

9 ***RS-232 Serial Communications Interface***
Provided for external control of the 8x1 DVI DL/SL Switcher.

How to Connect the 8x1 DVI DL/SL Switcher to your devices:

1. Connect the supplied DVI cables from the DVI sources into the 8x1 DVI Switcher's Inputs.

2. Connect the cable from your display (monitor or projector) into the DVI Out of the 8x1 DVI DL/SL Switcher.

3. Connect the included 5V power supply, then plug it into the wall.

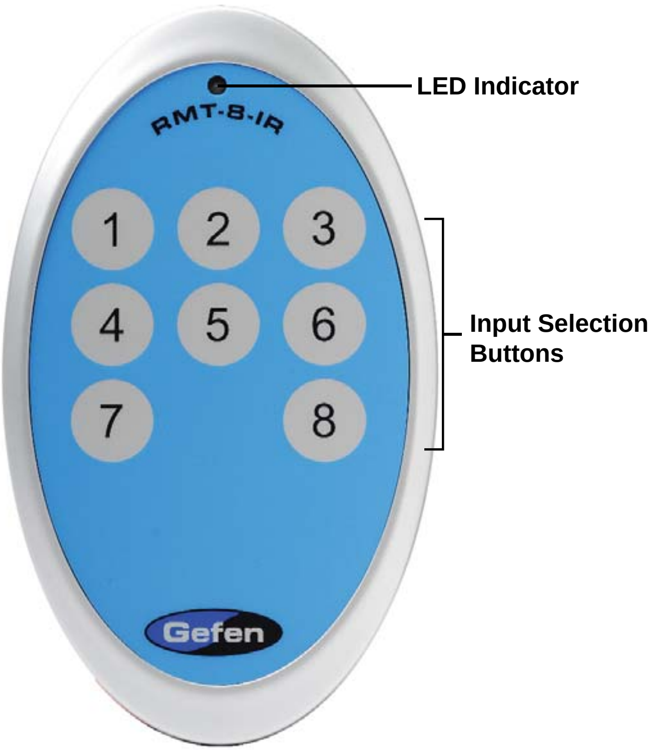
How to Operate the 8x1 DVI DL/SL Switcher:

1. Turn on the DVI display or projector first, then the video sources.

2. Turn on the 8x1 DVI DL/SL Switcher by screwing its 5V DC power supply tip into the receptacle in the rear of the chassis.

3. Use the RMT-8IR remote control to remotely switch between DVI video sources.

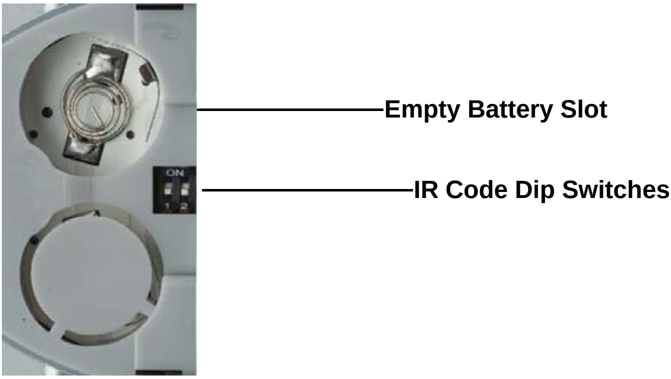
4. Alternatively, use a RS-232 control system.



The RMT-8IR remote control will allow the user to select which of 8 DVI sources will be displayed. Please use the information below when selecting the desired source for output to a display or other DVI video receiving device.

RMT-8IR Button	DVI Source
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8

To use the RMT-8IR remote, remove the battery cover on the back of the remote to reveal the battery compartment. Insert the included battery into the open battery slot. The positive (+) side should be facing up. Ensure that both DIP (Dual Inline Package) switches are in the OFF position. Replace the battery cover. The remote ships with 2 batteries. One battery is needed for operation and the other battery is complimentary.



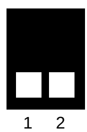
How to Resolve IR Code Conflicts

In the event that IR commands from other remote controls conflict with the supplied RMT-8IR remote control, changing the remote channel will alleviate this issue. The RMT-8IR remote control and the 8x1 DVI DL/SL Switcher both have banks of DIP (Dual Inline Package) Switches for configuring the remote channel that both units use to communicate. These settings must exactly match each other for proper operation.

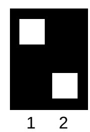
The DIP Switch bank on the RMT-8IR is located underneath the battery cover. DIP Switch banks for the 8x1 DVI DL/SL Switcher are located on the underside of the unit beneath a black piece of metallic tape. One DIP switch bank (4-switch) is for the adjustment of remote control frequencies and switch behavior. The other DIP switch (8-switch) is reserved for Gefen use only. DIP Switches 1 and 2 on the RMT-8IR directly correspond to DIP Switches 1 and 2 on the 8x1 DVI DL/SL Switcher. Only switches 1 and 2 (of 4 in that bank) are used for IR Code settings.



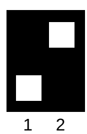
Remote Channel 1:
Default



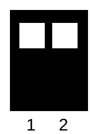
Remote Channel 2:



Remote Channel 3:



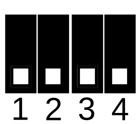
Remote Channel 4:



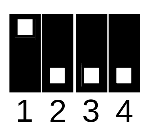
Left: Picture of the opened rear battery compartment of the RMT8-IR remote showing the exposed DIP Switch bank between the battery chambers.

<u>8x1 DVI DL/SL Switcher</u>

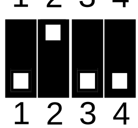
Remote Channel 1:
Default



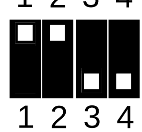
Remote Channel 2:



Remote Channel 3:



Remote Channel 4:





Only Pins 2 (RX), 3 (TX), and 5 (Ground) are used on the RS-232 serial interface

Binary Table

ASCII	Corresponding RMT8-IR Button	Binary
1	1	0011 0001
2	2	0011 0010
3	3	0011 0011
4	4	0011 0100
5	5	0011 0101
6	6	0011 0110
7	7	0011 0111
8	8	0011 1000

RS232 Settings

Bits per second 19200

Data bits 8

Parity .... None

Stop bits 1

Flow Control .... None

RACK MOUNT INSTALLATION

Rack mount ears are provided for installation of this unit into a 1U rack mount space.

1. Locate the side screws on the unit.
2. Remove the front 2 screws that are located closest to the front of the unit.
3. Using the removed screws, screw the rack mounting bracket into the unit.
4. Repeat the procedure on the opposite side of the unit.

1



2



3



4



Video Amplifier Bandwidth:...165 MHz x 2

Input Video Signal:...1.2 Volts p-p

Input DDC Signal:..5 Volts p-p (TTL)

Single Link Range:..1920 x 1200

Dual Link Range :.. 3840 x 2400

DVI Connector:.. DVI-I 29-pin female (digital only)

Power Supply:...5V DC

Power Consumption:...20 Watts (max)

Dimensions:...17" W x 1.75" H x 4.375" D

Rackmountable:..1U Rack Space

Shipping Weight:..12 lbs.